REMARKS

The Office Action dated February 3, 2009 has been received and carefully noted. The following remarks are submitted as a full and complete response thereto.

Claims 1-26 are pending and under consideration.

REJECTION UNDER 35 U.S.C. § 103:

Claims 1-26 were rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 6,970,476 of Jonsson et al. ("Jonsson") in view of U.S. Patent Publication No. 2003/00122788 of Banerji et al. ("Banerji") and further in view of U.S. Patent No. 6,151,627 to McBride et al. ("McBride"). The Office Action alleged that Jonsson describes all the features of independent claims 1, 6, 11, 15, 19, and 22-26 except for the features associated with based on a first algorithm configured to determine whether a packet is to be compressed, and based on a second algorithm configured to determine whether a compressed packet is to be used for the updating of the compression history. The Office Action relied upon the combination of Banerji and McBride to cure the deficiencies of Jonsson. The rejection is respectfully for at least the following reasons.

Claim 1, upon which claims 2-5 are dependent, recites a method that includes selectively updating a compression history at a compressor based on a first algorithm configured to determine whether a packet is to be compressed. The selectively updating of the compression history at the compressor is also based on a second algorithm

configured to determine whether a compressed packet is to be used for the updating of the compression history.

Claim 6, upon which claims 7-10 are dependent, recites a method that includes using a first algorithm in conjunction with a compressing device to decide if a current packet should be compressed. The method also includes using a second algorithm in conjunction with the compressing device to decide which packets out of packets sent compressed are to be used to update a buffer of the compressing device. The method additionally includes signaling from the compressing device to a decompressing device such that the decompressing device knows which of the packets out of the packets sent are to be included in a compression history.

Claim 11, upon which claims 12-14 are dependent, recites an apparatus that includes a processor configured to update a compression history selectively, the processor having implemented and being configured to process a first algorithm related to whether a packet shall be compressed, and a second algorithm related to whether a compressed packet shall be used for an update of the compression history.

Claim 15, upon which claims 16-18 are dependent, recites an apparatus that includes a transmitter configured to signal to a decompression device which of a first set of packets are to be included in a compression history, the transmitter having implemented and processing a first algorithm used to decide if the current packet should be compressed. The apparatus also includes processing means for having a processor configured to have implemented and processing a second algorithm, wherein the second

algorithm is used to determine which of a second set of packets out of a third set of packets sent compressed are to be used to update a buffer, wherein the processor is operably connected to the signaling unit.

Claim 19, upon which claims 20 and 21 are dependent, recites an apparatus that includes a receiver configured to receive signals from a compression device indicating which packets are to be included in a compression history. The apparatus additionally includes a processor configured to process a packet sequence number for updating the buffer means in synchronization with the compression device, wherein the processing means is operably connected to the receiving means.

Claim 22 recites an apparatus comprising updating means for updating a compression history selectively, the updating means for implementing and processing a first algorithm related to whether a packet shall be compressed, and a second algorithm related to whether a compressed packet shall be used for an update of the compression history. Monitoring means is operably connected to the updating means for monitoring an acknowledgment signaling

Claim 23 recites an apparatus comprising signaling means for signaling a decompression device which of a first set of packets are to be included in the compression history, the signaling means having implemented and processing a first algorithm used to decide if the current packet should be compressed. The apparatus further includes processing means for having implementing and processing a second algorithm. The second algorithm is used to determine which of a second set of packets

out of a third set of packets sent compressed are to be used to update the buffer, and the processor is operably connected to the means for signaling.

Claim 24 recites an apparatus comprising receiving means for receiving signals from a compression device indicating which packets are to be included in a compression history, and processing means for processing a packet sequence number for updating the buffer in synchronization with the compression device. The processor is operably connected to the receiving means.

Claim 25 recites a computer program, embodied on a computer-readable medium, the computer program configured to control a processor to perform a method. The method includes selectively updating a compression history at a compressor based on a first algorithm configured to determine whether a packet is to be compressed, and based on a second algorithm configured to determine whether a compressed packet is to be used for the updating of the compression history.

Claim 26 recites a computer program, embodied on a computer-readable medium, the computer program configured to control a processor to perform a method. The method includes using a first algorithm in conjunction with a compressing device to decide if a current packet should be compressed, using a second algorithm in conjunction with the compressing device to decide which packets out of packets sent compressed are to be used to update a buffer of the compressing device, and signaling from the compressing device to a decompressing device such that the decompressing device

knows which of the packets out of the packets sent are to be included in a compression history.

As will be discussed below, Applicant respectfully submits that Jonsson and Banerji fail to disclose or suggest all of the elements of the presently pending claims.

Jonsson discloses that, in packet communications that utilize header compression/decompression, relatively fast and reliable header compression context updates can be accomplished with relatively low overhead by sending anticipatory context update requests before decompressor context invalidation is detected, sending redundant context update requests, and sending redundant context updates. Transmission parameters associated with both context update requests and context updates can be controlled appropriately to improve their chances for delivery, and needless context update requests can be identified and ignored at the header compression side.

Banerji generally discloses a system and method for compressing video that video frames that between consecutive I-frames are grouped into a video data set. The video data set is split into separate homogeneous files, and each of the homogeneous files are individually compressed. The individually compressed files are multiplexed to form a bit stream.

McBride generally describes in-line monitoring of a communication link between two stations in a frame-based communication network. The said two stations employ a compression algorithm for the transmission of frames and a corresponding decompression algorithm for the reception and decompression of the frames. The

algorithms require the maintenance at a transmitting station of a compression history in terms of the number of frames transmitted since a datum point and the maintenance of a corresponding compression history at a receiving station in terms of the number of frames received, the frames each including an identification of the compression sequence so that the receiving station can detect mismatch between the compression sequence and the receiving sequence. The monitoring method detects frames transmitted from one of the stations to the other, detects whether frames are compressed, decompresses compressed frames and maintains a compression history corresponding to that maintained by the receiving station.

Applicant respectfully submits that Jonsson, Banerji, and McBride, whether viewed individually or combined, fail to disclose or suggest all of the elements of the present claims. Jonsson merely discloses that the context control information that includes a context update request, further comprising receiving the context update request at the second packet communication station, determining whether a context update corresponding to the received context update request has already been sent from the second packet communication station to the first packet communication station, and ignoring the received context update request if a corresponding context update has already been sent from the second packet communication station to the first packet communication station. See column 11, lines 10-19. Jonsson does not provide any disclosure of selectively updating a compression history or determining whether a compressed packet is to be used for the updating of the compression history.

The Office Action correctly recognized that Jonsson fails to teach or suggest, "selectively updating a compression history at a compressor *based on a first algorithm configured to determine whether a packet is to be compressed, and based on a second algorithm configured to determine whether a compressed packet is to be used for the updating of the compression history*," emphasis added, as recited in claim 1 and similarly recited in claims 11, 22, and 25; and "using a second algorithm in conjunction with the compressing device to decide which packets out of packets sent compressed are to be used to update a buffer of the compressing device," as recited in claim 6 and similarly recited in claim 26. Accordingly, the Office Action relied upon the description of Banerji and McBride as curing the deficiencies of Jonsson. However, contrary to the contentions made in the Office Action, Applicant respectfully submits that Banerji and McBride do not cure the deficiencies of Jonsson.

Banerji describes that motion data information of each I-frame distance set is split into a set of homogenous files, based on whether the component represents horizontal or vertical motion, whether the frame is P- or B-type, and so on. See paragraph [0010] An additional file is formed that stores the motion compensation modes. These files are then individually compressed using a suitable lossless data compression algorithm that can exploit data history from the beginning of each file. However, Banerji does not teach or suggest that *a determination is performed* using a first algorithm to determine whether a packet is to be compressed. Rather, files are individually compressed. Banerji does not

perform a determination using the lossless data compression algorithm and does not compress a packet. Instead, Banerji simply compresses a file.

In Banerji, it is described that "the run-length encoded files and the additional file are then individually encoded using a suitable lossless data compression algorithm that can exploit data history from the beginning of each file." However, as recited in independent claim 1 and similarly recited in other independent claims, the compressed packet are to be used to update the compression history. In contrast, in Banerji, the compression algorithm uses the data history to compress/encode the files, rather than vice versa.

Furthermore, contrary to the contentions made in the Office Action, Banerji does not cure the deficiencies of Jonsson because Banerji also fails to teach or suggest, at least, "selectively updating a compression history at a compressor based on a first algorithm configured to determine whether a packet is to be compressed, and based on a second algorithm configured to determine whether a compressed packet is to be used for the updating of the compression history," as recited in independent claim 1 and similarly recited in independent claims 6, 11, 15, 19, and 22-26. Banerji does not teach or suggest that a compression history is selectively updated based on a first algorithm *and* based on a second algorithm. Banerji simply provides that quantized transform coefficient data are split into a set of files corresponding to different bit-planes of the quantized transform coefficient data, and an additional file is formed that provides information about the number of bit-planes for each block in a frame. See paragraph [0011] Banerji does not

teach or suggest that the compression history is selectively updated using two algorithms, the first algorithm configured to determine whether a packet is to be compressed and the second algorithm configured to determine whether a compressed packet is to be used for the updating of the compression history. Instead, Banerji generally provides that *bit-plane files* are compressed using run-length encoding. (Emphasis added) *The run-length encoded files and the additional file* are individually coded using a suitable lossless data compression algorithm that can exploit data history from the beginning of each file. Neither the run-length encoding nor the lossless data compression algorithm is configured to determine whether a packet is to be compressed nor configured to determine whether a compressed packet is to be used for the updating of the compression history. The lossless data compression algorithm does not determine whether a compressed packet is to be used for the updating of the compression history as recited in independent claim 1 and similarly recited in independent claims 6, 11, 15, 19, and 22-26.

Banerji is only directed to the separation and compression of motion data. Indeed, Banerji merely describes that the files are compressed using a suitable lossless data compression algorithm that can exploit data history from the beginning of each file. Banerji does not selectively update a compression history at a compressor based on a first algorithm configured to determine whether a packet is to be compressed, and based on a second algorithm configured to determine whether a compressed packet is to be used for the updating of the compression history.

McBride, in turn, does not cure the deficiencies of Jonsson and Banerji. For instance, as described in FIG. 2 of McBride illustrates a driver 20 receiving frames are which by way of a buffer 21 passes a frame to a frame preprocessor 22 which attempts to decompress the payload (the compressed data) if it can. The preprocessor passes on either the original, compressed payload or the decompressed payload to the rest of the system. The frame preprocessor needs to decode a portion of a received frame to be able to determine whether the frame is compressed or not. Generally speaking, the frame processor will extract various flags, ignore any 'padding' octets and extract a control field. The extracted fields will be stored in a buffer, along with the original frame length, and will be examined for known compression algorithms. If a match is detected, a decompression engine 23 will be employed and the returned buffer will be used for the rest of the decode, the original buffer being preferably returned to the 'driver pool', namely made available for the storage of data received by the driver. The frame preprocessor will mark the frame as 'decompressed' in a suitable header.

However, similarly to Jonsson and Banerji, McBride fails to teach or suggest, at least, "based on a second algorithm configured to determine whether a compressed packet is to be used for the updating of the compression history," as recited in independent claim 1 and similarly recited in independent claims 6, 11, 15, 19, and 22-26. Instead, McBride simply describes that the decompression engine 23 is employed and the returned buffer will be used for the rest of the decode. There is no teaching or suggestion that a compressed packet is used to update the compression history.

Further, McBride limits its description to describing that if the decompression engine should fail to decompress the compressed frame, it may update a separate compression MIB with this information and will pass the original frame on to an RMON2 decoder 24, the construction of which is not relevant, as explicitly indicated in McBride. Clearly, contrary to the contentions made in the Office Action, McBride does not teach or suggest a determination of whether a compressed frame is to be used to update a compression history. Rather, in the event that the decompression engine fails to decompress a compressed frame, the decompression engine updates a separate compression a management information base, MIB. From the description of McBride, it is apparent that the update of the separate compression MIB is simply a recording that the decompression engine failed to decompress a particular compressed frame. Clearly, a person of ordinary skill in the art would appreciate that McBride does not teach or suggest, at least, a method "configured to determine whether a compressed packet is to be used for the updating of the compression history," as recited in independent claim 1 and similarly recited in independent claims 6, 11, 15, 19, and 22-26.

Lastly, McBride describes that FIG. 2 illustrates the decompression engine as containing a pool of memories 29 and as returning a buffer 30 to a memory pool 31 within the driver 20. However, similarly to other portions of McBride, this portion referred to by the Office Action is devoid of any teaching or suggestion of "selectively updating a compression history at a compressor based on a first algorithm configured to determine whether a packet is to be compressed, and based on a second algorithm

configured to determine whether a compressed packet is to be used for the updating of the compression history," as recited in independent claim 1 and similarly recited in independent claims 6, 11, 15, 19, and 22-26.

Other portions of the description of Jonsson, Banerji, and McBride are also devoid of any teaching or suggestion providing the claimed features of the present invention.

With respect to independent claims 6 and 26, these claims recite, in part, "signaling from the compressing device to a decompressing device such that the decompressing device knows which of the packets out of the packets sent are to be included in a compression history." While Jonsson describes a timer coupled with each packet, the timer provides a timeout signal to context update request generator. Clearly, the timer does not indicate which packets are to be included in compression history. With respect to Banerji and McBride, these references are silent as to teaching or suggesting the features associated with the signaling step of independent claims 6 and 26.

Therefore, Applicant respectfully submits that the combination of Jonsson, Banerji, and McBride fails to disclose or suggest all of the features of claims 1, 6, 11, 15, 19, and 22-26. Claims 2-5, 7-10, 12-14, 16-18, and 20-21 are dependent upon claims 1, 6, 11, 15, and 19. Thus, claims 2-5, 7-10, 12-14, 16-18, and 20-21 should be allowed for at least their dependence upon claims 1, 6, 11, 15, and 19, and for the specific limitations recited therein.

Accordingly, Applicant respectfully requests that the rejection of claims 1-26 be withdrawn.

CONCLUSION:

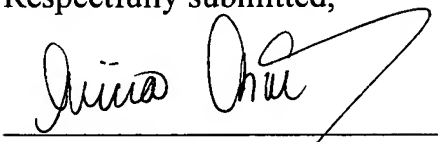
In view of the above, Applicant respectfully submits that the claimed invention recites subject matter which is neither disclosed nor suggested in the cited prior art. Applicant further submits that the subject matter is more than sufficient to render the claimed invention unobvious to a person of skill in the art. Applicant therefore respectfully requests that each of claims 1-26 be found allowable and this application passed to issue.

If for any reason the Examiner determines that the application is not now in condition for allowance, it is respectfully requested that the Examiner contact, by telephone, the applicant's undersigned attorney at the indicated telephone number to arrange for an interview to expedite the disposition of this application.

In the event this paper is not being timely filed, the Applicant respectfully petitions for an appropriate extension of time.

Any fees for such an extension together with any additional fees may be charged to Counsel's Deposit Account 50-2222.

Respectfully submitted,



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